

AMENDMENTS TO THE CLAIMS

Applicant presents a full set of claims for the convenience of the Examiner. No amendments of the claims have been made.

1-146. (Cancelled)

147. (Previously Presented) A method for inducing a mucosal immune response, comprising

mucosally administering to a subject an oligonucleotide 8 to 100 nucleotides in length and comprising 5' X1X2CGX3X4 3' wherein C is unmethylated and X1, X2, X3, and X4 are nucleotides, and an antigen that is not encoded in a nucleic acid vector, and systemically administering to the subject the antigen.

148. (Previously Presented) The method of claim 147, wherein the oligonucleotide and antigen are administered mucosally as a priming dose, and the antigen is administered systemically as a boost dose.

149. (Previously Presented) The method of claim 147, wherein the antigen is administered systemically as a priming dose, and the oligonucleotide and antigen are administered mucosally as a boost dose.

150. (Previously Presented) The method of claim 147, wherein the antigen is administered systemically with a CpG oligonucleotide 8-100 nucleotides in length and comprising 5' X1X2CGX3X4 3', wherein C is unmethylated, wherein X1, X2, X3, and X4 are nucleotides.

151. (Previously Presented) The method of claim 147, wherein the oligonucleotide and antigen are administered mucosally with a non-nucleic acid mucosal adjuvant.

152. (Previously Presented) The method of claim 147, wherein the antigen is administered systemically with a non-nucleic acid mucosal adjuvant.

153. (Previously Presented) The method of claim 150, wherein the antigen is administered systemically with a non-nucleic acid mucosal adjuvant.

154. (Previously Presented) The method of claim 147, wherein the antigen is a polypeptide or a peptide.

155. (Previously Presented) The method of claim 147, wherein mucosally administering is intranasally administering or administering by inhalation.

156. (Previously Presented) The method of claim 154, wherein mucosally administering is intranasally administering or administering by inhalation.

157. (Previously Presented) The method of claim 147, wherein systemically administering is intramuscularly administering.

158. (Previously Presented) The method of claim 154, wherein systemically administering is intramuscularly administering.

159. (Previously Presented) The method of claim 156, wherein systemically administering is intramuscularly administering.

160. (Previously Presented) A method for inducing an immune response, comprising systemically administering to a subject, as a priming dose, an antigen that is not encoded in a nucleic acid vector, and

mucosally administering to the subject, as a boost dose, an oligonucleotide 8-100 nucleotides in length and comprising 5' X1X2CGX3X4 3' wherein C is unmethylated and X1, X2, X3, and X4 are nucleotides, and the antigen.

161. (Previously Presented) The method of claim 160, wherein the antigen is systemically administered with a CpG oligonucleotide 8-100 nucleotides in length and comprising 5' X1X2CGX3X4 3' wherein C is unmethylated and X1, X2, X3, and X4 are nucleotides.

162. (Previously Presented) The method of claim 160, wherein the antigen is systemically administered with a non-nucleic acid mucosal adjuvant.

163. (Previously Presented) The method of claim 161, wherein the antigen is systemically administered with a non-nucleic acid mucosal adjuvant.

164. (Previously Presented) The method of claim 160, wherein the antigen is mucosally administered to the subject with a non-nucleic acid mucosal adjuvant.

165. (Previously Presented) The method of claim 163, wherein the antigen is mucosally administered to the subject with a non-nucleic acid mucosal adjuvant.

166. (Previously Presented) A method for inducing a mucosal immune response in a subject, comprising

mucosally administering to a subject, as a boost dose, an oligonucleotide 8-100 nucleotides in length and comprising 5' X1X2CGX3X4 3' wherein C is unmethylated and X1, X2, X3, and X4 are nucleotides, and an antigen that is not encoded by a nucleic acid vector, wherein the subject has received a priming dose of antigen administered systemically.